ABSTRACT

A method for reducing the frictional losses and improving the operational efficiency of a submersible robotic pool cleaner equipped with an electric motor in a sealed waterproof housing includes treating at least a portion of the motor's drive shaft with a specialized heat-setting anti-friction lubricant composition to minimize frictional energy losses where the shaft contacts the waterproof seal(s) and any shaft bearing(s), to maximize efficiency and minimize the power consumption of the motor and driven assembly. The reduction in frictional losses accorded by the method permits a battery-powered pool cleaner to completely traverse the surfaces to be cleaned within the fully-charged power capacity of the on-board battery.

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